

Revision A:

- Remote controller model "KM04B" has been added.

Please void OB404.

INDOOR UNIT

SERVICE MANUAL

No. OB404
REVISED EDITION-A

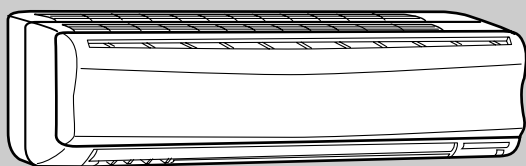
Wireless type Models

MS-A18ND- S1

MS-A24ND- S1

MS-A30ND- S1

Outdoor unit service manual
MU-A-ND Series (OB405)



MS-A18ND
MS-A24ND
MS-A30ND



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NOTE:

- This service manual describes technical data of the indoor units.
- RoHS compliant products have <G> mark on the spec name plate.
For servicing of RoHS compliant products, refer to the RoHS Parts List.

Mr. SLIM™

Revision A:

- Remote controller model "KM04B" has been added.
- There are two remote controller models for "[S1]". (KP0B, KM04B)
You can use the remote controller model "KP0B" and "KM04B".
The remote controller model "KM04B" is supplied as service parts for "[S1]".

1

TECHNICAL CHANGES

※ : change

Frequency	60Hz	
New Model	MS-A18ND - [S1]	
Old Model	MS-18TN - [S1]	MS-18SN - [C1]
Indoor unit: Unit size: W1,015mm×H320mm×D190mm → W1,100mm×H325mm×D258mm	※	※
Electricity receiving unit: Indoor unit → Outdoor unit	※	※
Rated voltage: 220V → 220-230V	※	※

Frequency	60Hz	
New Model	MS-A24ND - [S1]	
Old Model	MS-24TN - [S1]	MS-24SN - [C2]
Indoor unit: Unit size: W1,015mm×H320mm×D190mm → W1,100mm×H325mm×D258mm	※	※
Electricity receiving unit: Indoor unit → Outdoor unit	※	※
Rated voltage: 220V → 220-230V	※	※

MS-A30ND - [S1]

New model

2

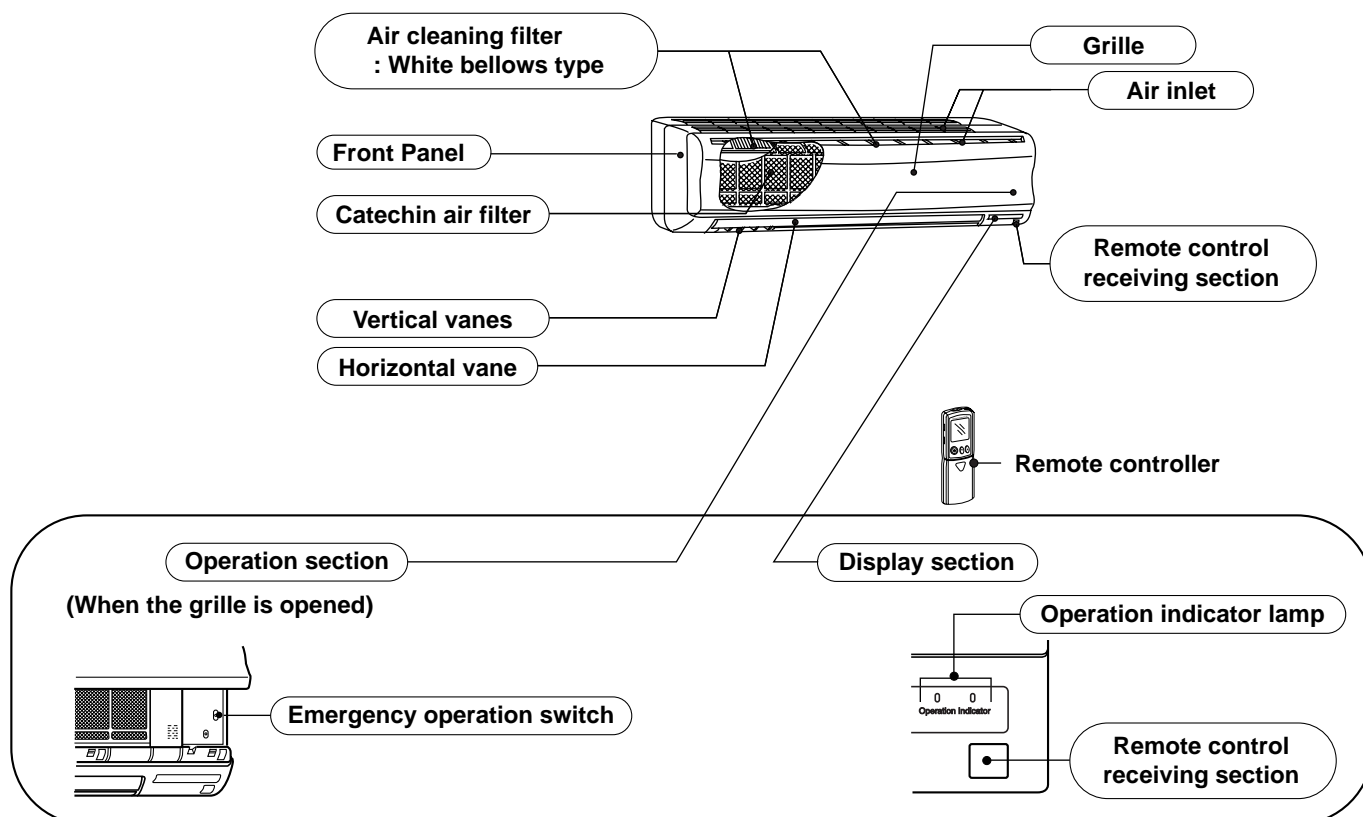
PART NAMES AND FUNCTIONS

INDOOR UNIT

MS-A18ND

MS-A24ND

MS-A30ND

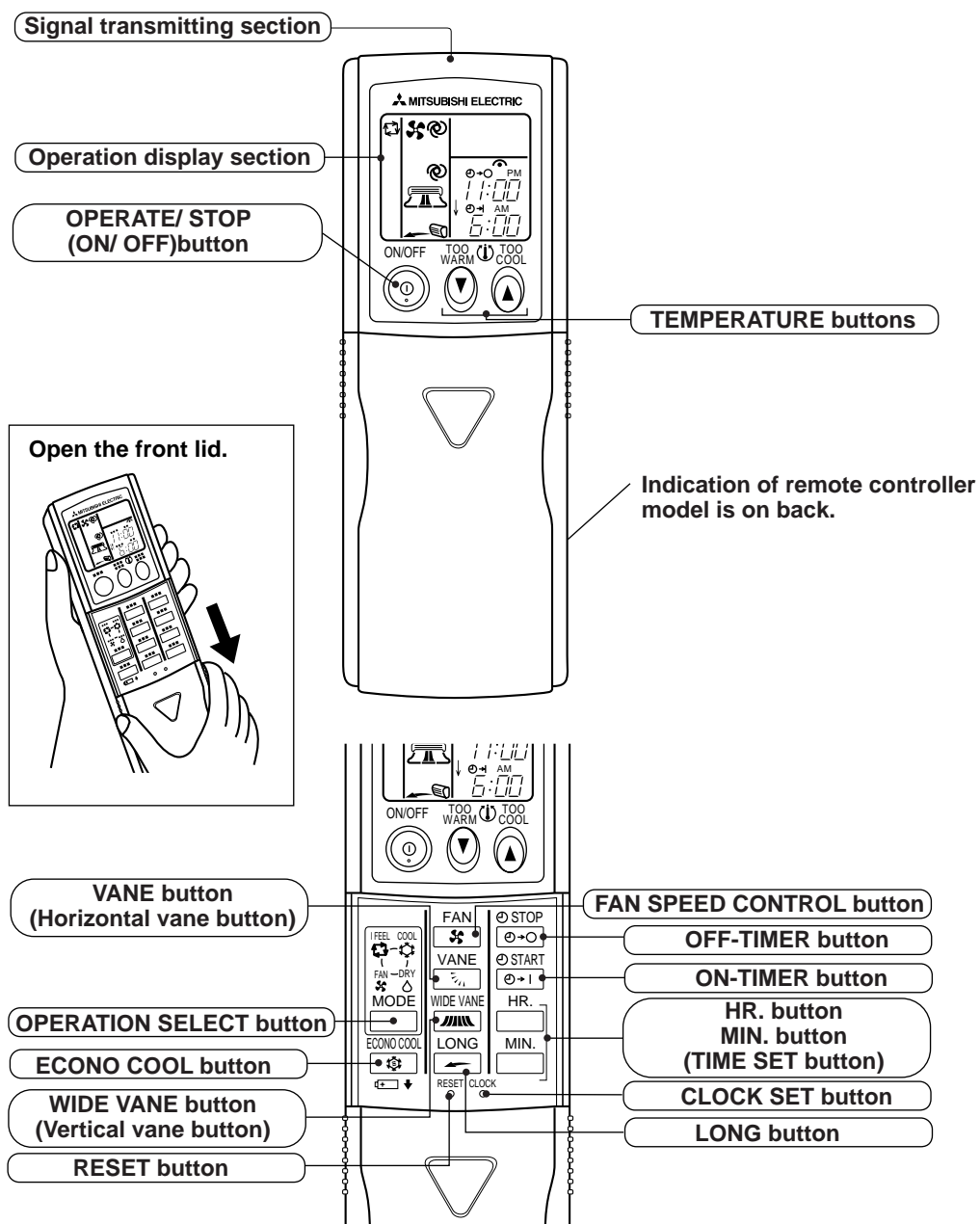


ACCESSORIES

		MS-A18ND MS-A24ND MS-A30ND
①	Installation plate	1
②	Installation plate fixing screw 4 x 25 mm	7
③	Remote controller holder	1
④	Fixing screw for ③ 3.5 x 16 mm (Black)	2
⑤	Battery (AAA) for remote controller	2
⑥	Wireless remote controller	1
⑦	Felt tape (Used for left or left-rear piping)	1
⑧	Air cleaning filter	2
⑨	Pipe cover	—

REMOTE CONTROLLER

MS-A18ND
MS-A24ND
MS-A30ND



Indoor model			MS-A18ND	MS-A24ND	MS-A30ND
Function			Cooling		
Power supply			Single phase 220-230V, 60Hz		
Capacity	Air flow (High/Med./Low)	m ³ /h	948/762/576	948/834/714	948/804/660
Electrical data	Running current	A	0.37		
	Power input	W	81		
	Auxiliary heater	A(kW)	—		
	Power factor	%	100-95		
	Fan motor current	A	0.37		
Fan motor	Model		RC4V40-AA		
	Winding resistance(at 20°C)	Ω	WHT-BLK 138.2 RED-BLK 159.0		
	Dimensions W×H×D	mm	1,100×325×258		
	Weight	kg	16		
Special remarks	Air direction		5		
	Sound level (High/Med./Low)	dB	45/40/34	45/41/37	45/41/37
	Fan speed (High/Med./Low)	rpm	1,220/1,020/810	1,220/1,100/970	1,220/1,070/910
	Fan speed regulator		3		
	Thermistor RT11(at 25°C)	kΩ	10		
	Thermistor RT12(at 25°C)	kΩ	10		
Remote controller model			KP0B / KM04B		

NOTE: Test conditions are based on ISO 5151 / SSA 385

Cooling : Indoor DB27°C WB19°C / DB29°C WB19°C

Outdoor DB35°C WB24°C / DB46°C WB24°C

Indoor-Outdoor piping length : 5 / 7.5 m

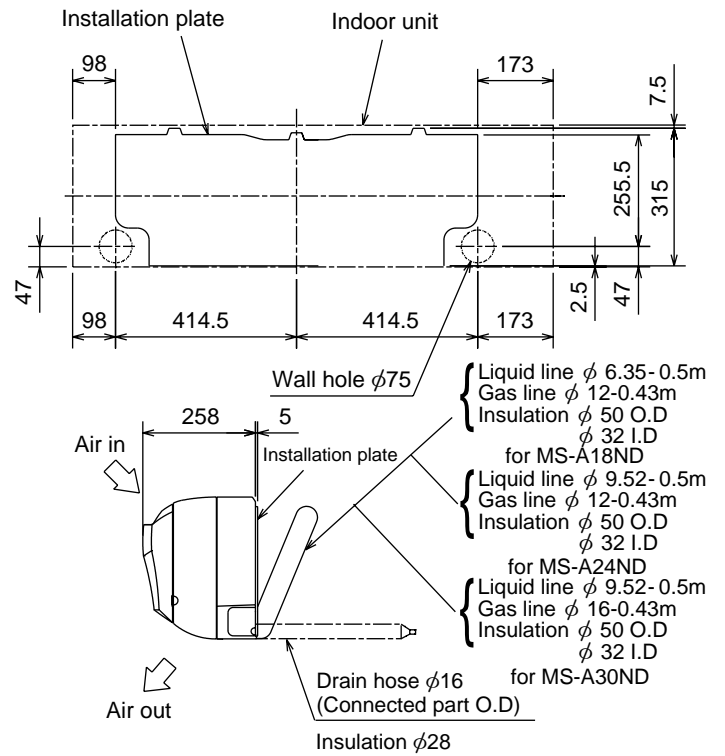
OUTLINES AND DIMENSIONS

Unit: mm

Technical drawing of the Wireless remote controller showing dimensions in millimeters (mm):

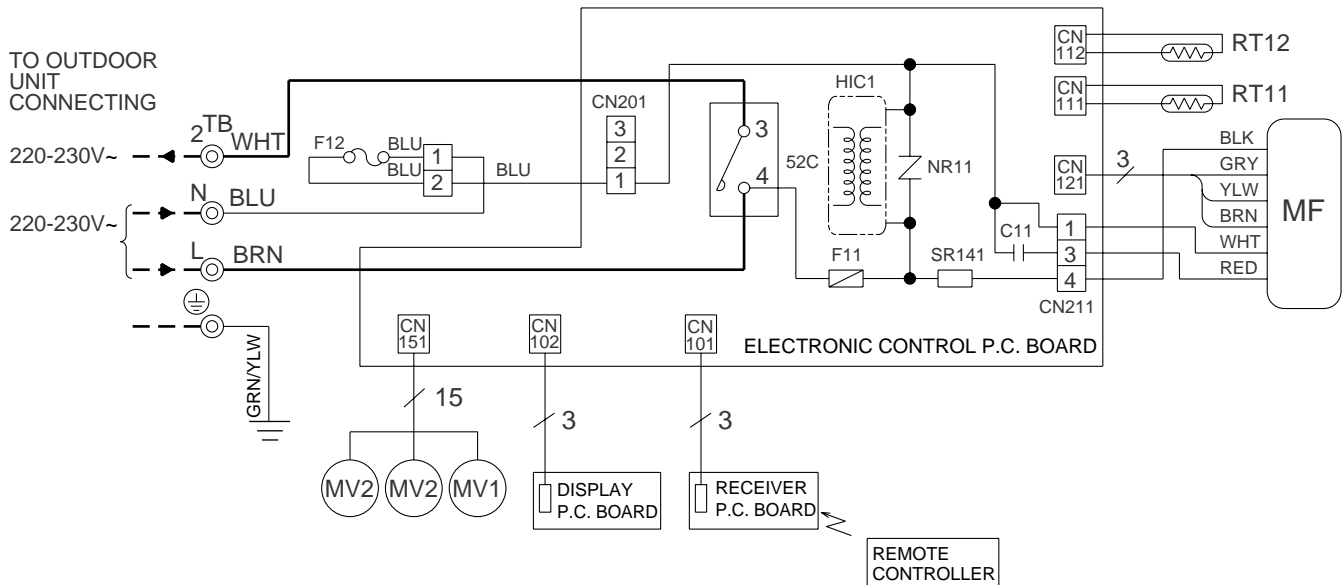
- Top View:** Length 1068 mm.
- Front View:** Total width 1100 mm, total height 325 mm. The bottom section has a width of 56 mm, a central panel width of 791 mm, and a right-side section width of 253 mm.
- Side View:** Thickness 19 mm.
- Bottom View:** Width 58 mm, height 162 mm.

Wireless remote controller



MS-A18ND MS-A24ND

INDOOR UNIT



SYMBOL	NAME	SYMBOL	NAME	SYMBOL	NAME
C11	INDOOR FAN CAPACITOR	MV1	HORIZONTAL VANE MOTOR	SR141	SOLID STATE RELAY
F11	FUSE(3.15A)	MV2	VERTICAL VANE MOTOR	TB	TERMINAL BLOCK
F12	THERMAL FUSE(93°C)	NR11	VARISTOR	52C	COMPRESSOR CONTACTOR
HIC1	DC/DC CONVERTER	RT11	ROOM TEMPERATURE THERMISTOR		
MF	INDOOR FAN MOTOR(INNER PROTECTOR)	RT12	INDOOR COIL THERMISTOR		

NOTE:1. About the outdoor side electric wiring refer to the outdoor unit electric wiring diagram for servicing.

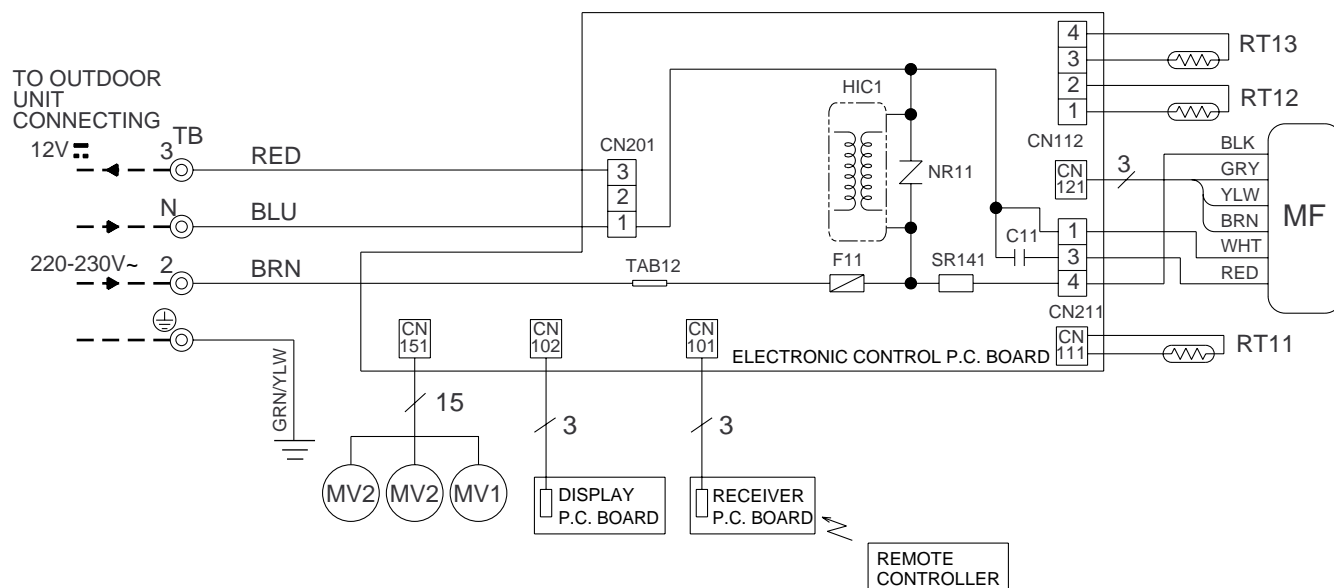
2. Use copper conductors only. (For field wiring)

3. Symbols below indicate.

⊙: Terminal block, □□□□: Connector

MS-A30ND

INDOOR UNIT



SYMBOL	NAME	SYMBOL	NAME	SYMBOL	NAME
C11	INDOOR FAN CAPACITOR	MV2	VERTICAL VANE MOTOR	SR141	SOLID STATE RELAY
F11	FUSE(3.15A)	NR11	VARISTOR	TB	TERMINAL BLOCK
HIC1	DC/DC CONVERTER	RT11	ROOM TEMPERATURE THERMISTOR		
MF	INDOOR FAN MOTOR(INNER PROTECTOR)	RT12	MAIN INDOOR COIL THERMISTOR		
MV1	HORIZONTAL VANE MOTOR	RT13	SUB INDOOR COIL THERMISTOR		

NOTE:1. About the outdoor side electric wiring refer to the outdoor unit electric wiring diagram for servicing.

2. Use copper conductors only. (For field wiring)

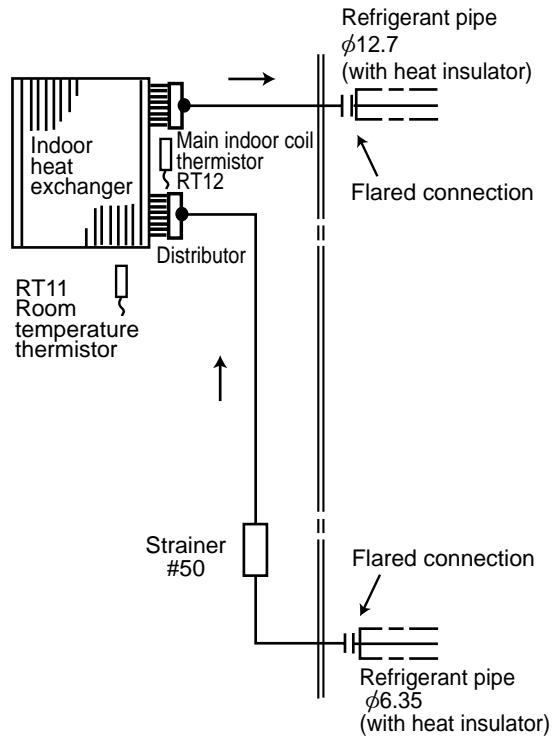
3. Symbols below indicate.

⊙: Terminal block, □□□□: Connector

MS-A18ND

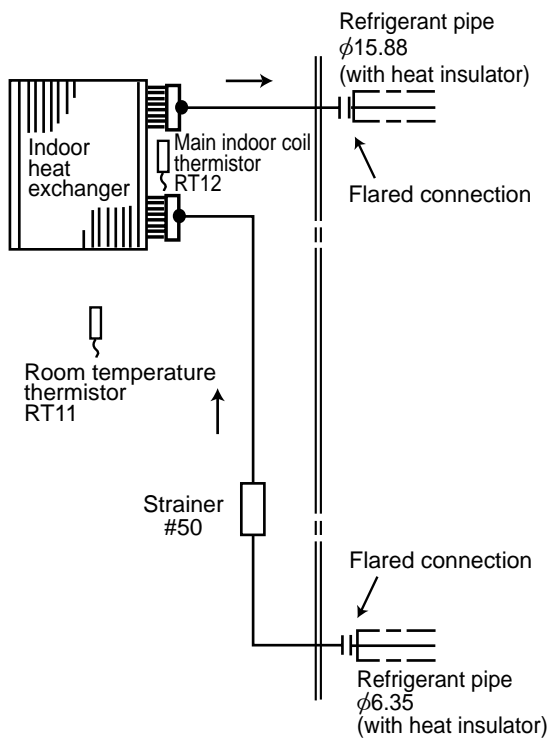
Unit : mm

INDOOR UNIT



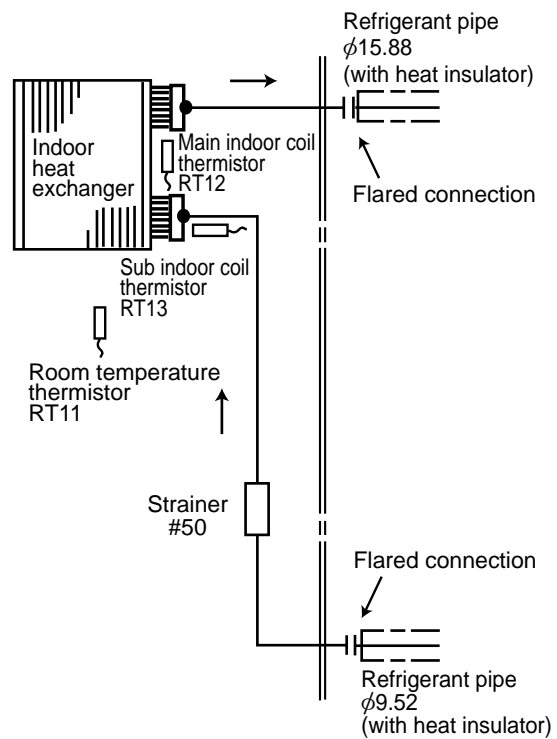
MS-A24ND

INDOOR UNIT



MS-A30ND

INDOOR UNIT



→ Refrigerant flow in cooling

MS-A18ND**MS-A24ND****MS-A30ND****7-1. TIMER SHORT MODE**

For service, set time can be shortened by short circuit of JPG and JPS the electronic control P.C. board.

The time will be shortened as follows. (Refer to 8-6.)

Set time : 1-minute → 1-second

Set time : 3-minute → 3-second

It takes 3 minutes for the compressor to start operation. However, the starting time is shortened by short circuit of JPG and JPS.

7-2. P.C. BOARD MODIFICATION FOR INDIVIDUAL OPERATION

A maximum of 4 indoor units with wireless remote controllers can be used in a room.

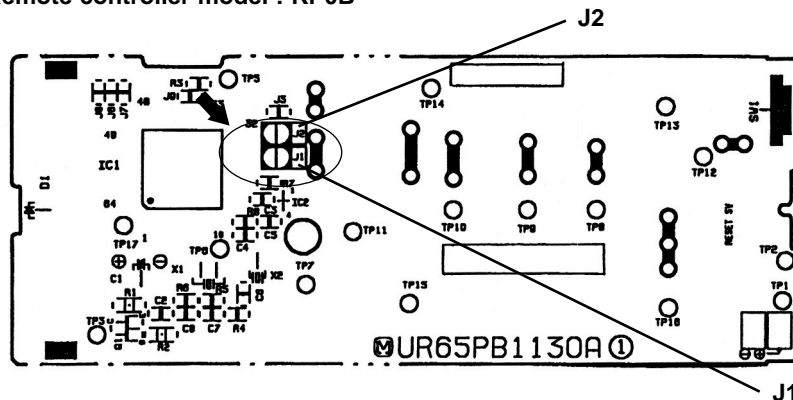
In this case, to operate each indoor unit individually by each remote controller, P.C. boards of remote controller must be modified according to the number of the indoor unit.

How to modify the remote controller P.C. board

Remove batteries before modification.

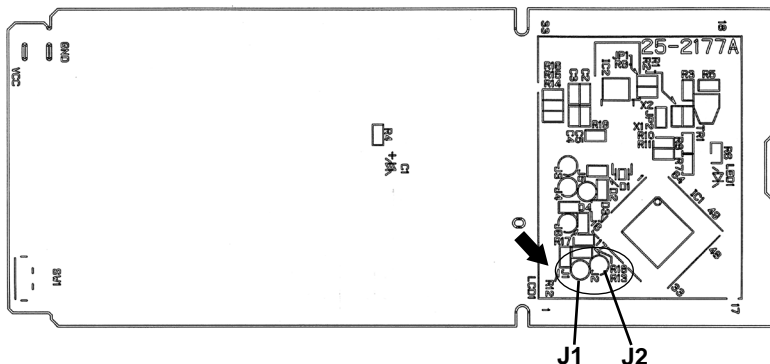
The board has a print as shown below :

Remote controller model : KP0B



NOTE : For remodelling, take out the batteries and press the OPERATE/STOP(ON/OFF) button twice or 3 times at first. After finish remodelling, put back the batteries then press the RESET button.

Remote controller model : KM04B



The P.C. board has the print "J1" and "J2". Solder "J1" and "J2" according to the number of indoor unit as shown in Table 1. After modification, press the RESET button.

Table 1

	1 unit operation	2 units operation	3 units operation	4 units operation
No. 1 unit	No modification	Same as at left	Same as at left	Same as at left
No. 2 unit	—	Solder J1	Same as at left	Same as at left
No. 3 unit	—	—	Solder J2	Same as at left
No. 4 unit	—	—	—	Solder both J1 and J2

How to set the remote controller exclusively for particular indoor unit.

After you turn the breaker ON, the first remote controller that sends the signal to the indoor unit will be regarded as the remote controller for the indoor unit.

The indoor unit will only accept the signal from the remote controller that has been assigned to the indoor unit once they are set.

The setting will be cancelled if the breaker has turned off, or the power supply has shut down.

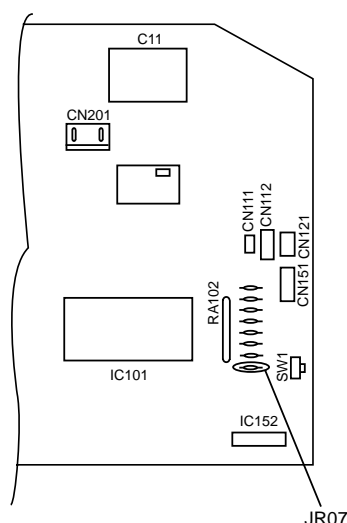
Please conduct the above setting once again after the power has restored.

7-3. AUTO RESTART FUNCTION

When the indoor unit is controlled with the remote controller, the operation mode, set temperature, and the fan speed are memorized by the indoor electronic control P.C.board. The "AUTO RESTART FUNCTION" sets to work the moment power has restored after power failure. Then, the unit will restart automatically. However if the unit is operated in "I FEEL CONTROL" mode before power failure, the operation is not memorized. In "I FEEL CONTROL" mode, the operation is decided by the initial room temperature.

How to release "AUTO RESTART FUNCTION"

- ① Turn off the main power for the unit.
- ② Pull out the indoor electronic control P.C. board and the display P.C. board. (Refer to 9.2.)
- ③ Solder the Jumper wire or the RESISTOR 220Ω to the RESISTOR JR07 on the indoor electronic control P.C.board. (Refer to 8-6.)



Operation

- ① If the main power has been cut, the operation settings remain.
- ② After the power is restored, the unit automatically resumes the same operation as the memory has recorded. However, it takes the compressor at least 3 minutes to get started.

NOTE:

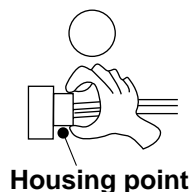
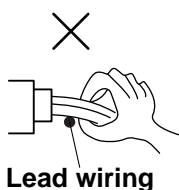
- The operation settings are memorized when 10 seconds have passed after the indoor unit was operated with the remote controller.
- If the main power is turned off or a power failure occurs while AUTO START/STOP timer is active, the timer setting is cancelled.
- If the unit has been off with the remote controller before power failure, the auto restart function does not work as the power button of the remote controller is off.
- To prevent breaker off due to the rush of starting current, systematize other home appliances not to turn on at the same time.
- When some air conditioners are connected to the same supply system, if they are operated before power failure, the starting current of all the compressors may flow simultaneously at restart. Therefore, the special counter-measures are required to prevent the main voltage-drop or the rush of the starting current by adding to the system that allows the units to start one by one.

MS-A18ND**MS-A24ND****MS-A30ND****8-1. Cautions on troubleshooting****1. Before troubleshooting, check the following:**

- 1) Check the power supply voltage.
- 2) Check the indoor/outdoor connecting wire for mis-wiring.

2. Take care the following during servicing.

- 1) Before servicing the air conditioner, be sure to turn off the unit first with the remote controller, and then after confirming the horizontal vane is closed, turn off the breaker and / or disconnect the power plug.
- 2) Be sure to turn OFF the power supply before removing the front panel, the cabinet, the top panel and the electronic control P.C. board.
- 3) When removing the electronic control P.C. board, hold the edge of the board with care NOT to apply stress on the components.
- 4) When connecting or disconnecting the connectors, hold the housing of the connector. DO NOT pull the lead wires.

**3. Troubleshooting procedure**

- 1) First, check if the OPERATION INDICATOR lamp on the indoor unit is flashing on and off to indicate an abnormality. To make sure, check how many times the abnormality indication is flashing on and off before starting service work.
- 2) Before servicing that the connector and terminal are connected properly.
- 3) If the electronic control P.C. board is supposed to be defective, check the copper foil pattern for disconnection and the components for bursting and discolouration.
- 4) When troubleshooting, refer to 8-2. and 8-3.

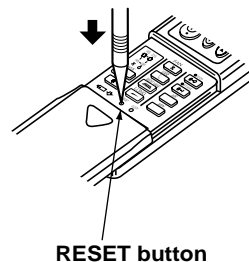
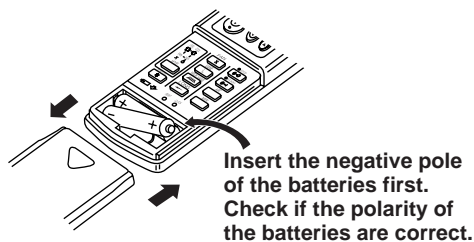
4. How to replace batteries

Weak batteries may cause the remote controller malfunction.

In this case, replace the batteries to operate the remote controller normally.

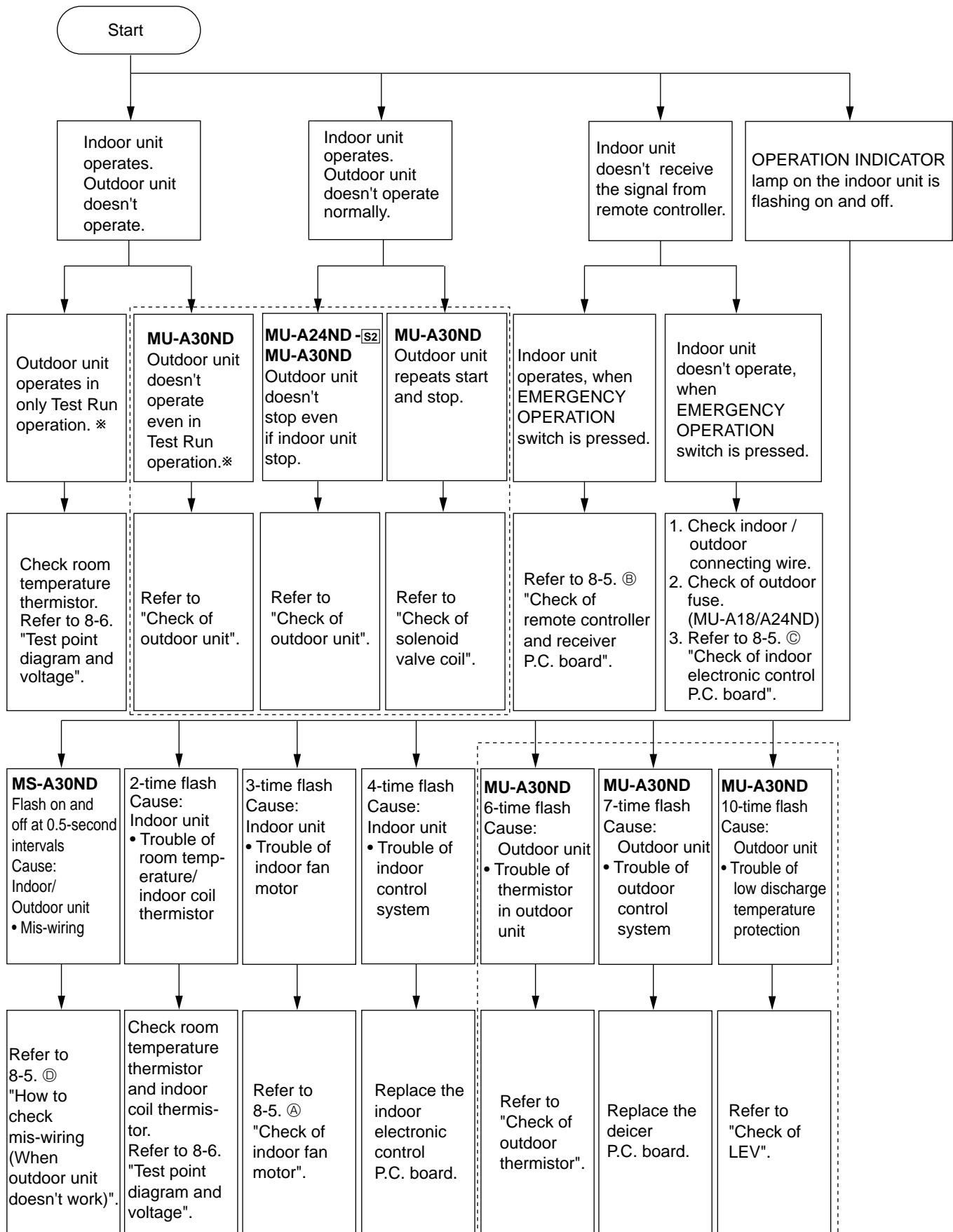
- ① Remove the front lid and insert batteries. Then reattach the front lid.

- ② Press the RESET button with tip end of ball point pen or the like, and then use the remote controller.



NOTE : 1. If the RESET button is not pressed, the remote controller may not operate correctly.

8-2. Instruction of troubleshooting

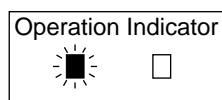


Refer to outdoor unit service manual.

※ "Test Run operation" means the operation within 30 minutes after EMERGENCY OPERATION switch is pressed.

8-3. Troubleshooting check table

- The following indication applies regardless of shape of the indicator.



- Flashing of the OPERATION INDICATOR lamp (the left-hand side lamp) indicates possible abnormalities.
- The OPERATION INDICATOR lamp (the left-hand side lamp) is lighting during normal operation.

Before taking measures, make sure that the symptom reappears for accurate troubleshooting.
Self check table

No.	Abnormal point	Indication	Symptom	Detection method	Check point
1	Mis-Wiring	0.5-second ON ●○○●○○●○○ 0.5-second OFF	Outdoor unit does not operate.	3 minutes after power supply turns ON, when serial signal is not received.	• Refer to 8-5. ③ "How to check mis-wiring".
2	Indoor coil thermistor Room temperature thermistor	2-time flash ●●○○○○●●○○ 2.5-second OFF	Outdoor unit does not operate.	Detect Indoor coil/room temperature thermistor short or open circuit every 8 seconds during operation.	• Refer to the characteristics of indoor coil thermistor, sub indoor coil thermistor, and room temperature thermistor on 8-6.
3	Indoor fan motor.	3-time flash ●●●○○○○●●●○○○○ 2.5-second OFF	Indoor fan motor repeats 12 seconds ON and 3 minutes OFF. When the indoor fan motor breaks, the fan keeps stopping.	When rotational frequency feedback signal is not emitting during 12-second indoor fan operation.	• Refer to 8-5. ④ "Check of indoor fan motor".
4	Indoor control system	4-time flash ●●●●○○○○●●●●○○○○ 2.5-second OFF	Outdoor unit does not operate.	When nonvolatile memory data cannot be read properly on indoor electronic control P.C. board.	• Replace the indoor electronic control P.C. board.
5	Outdoor thermistors MU-A30ND	6-time flash ●●●●●●○○○○●●○○○○ 2.5-second OFF	Outdoor unit does not operate.	<Thermistor short> Thermistors are abnormal when they short after compressor start-up. <Thermistor open> Thermistors are abnormal when they open after compressor start-up. However, discharge temperature thermistor is abnormal when open circuit is detected more than 10 minutes after compressor start-up.	• Shortage of refrigerant • Replace the deicer P.C. board. Refer to "Check of outdoor thermistor". Refer to outdoor unit service manual.
6	Outdoor control system MU-A30ND	7-time flash ●●●●●●○○○○●●○○○○ 2.5-second OFF	Outdoor unit does not operate.	When nonvolatile memory data cannot be read properly on deicer P.C. board.	• Replace the deicer P.C. board. Refer to outdoor unit service manual.
7	Low discharge temperature protection MU-A30ND	10-time flash ●●●●●●○○○○●●○○○○ 2.5-second OFF	Outdoor unit does not operate.	When discharge temperature has been 50°C or less for 20 minutes.	• Refer to "Check of LEV". • Check refrigerant circuit and refrigerant amount. Refer to outdoor unit service manual.

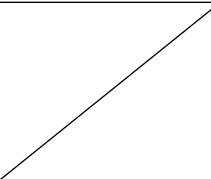
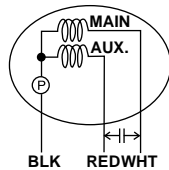
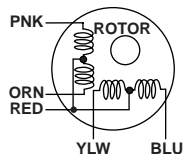
NOTE : When the indoor unit has started operation and the above detection method has detected an abnormality (the first detection after the power ON), the indoor electronic control P.C. board turns OFF the indoor fan motor with the OPERATION INDICATOR lamp flashing.

8-4. Trouble criterion of main parts

MS-A18ND

MS-A24ND

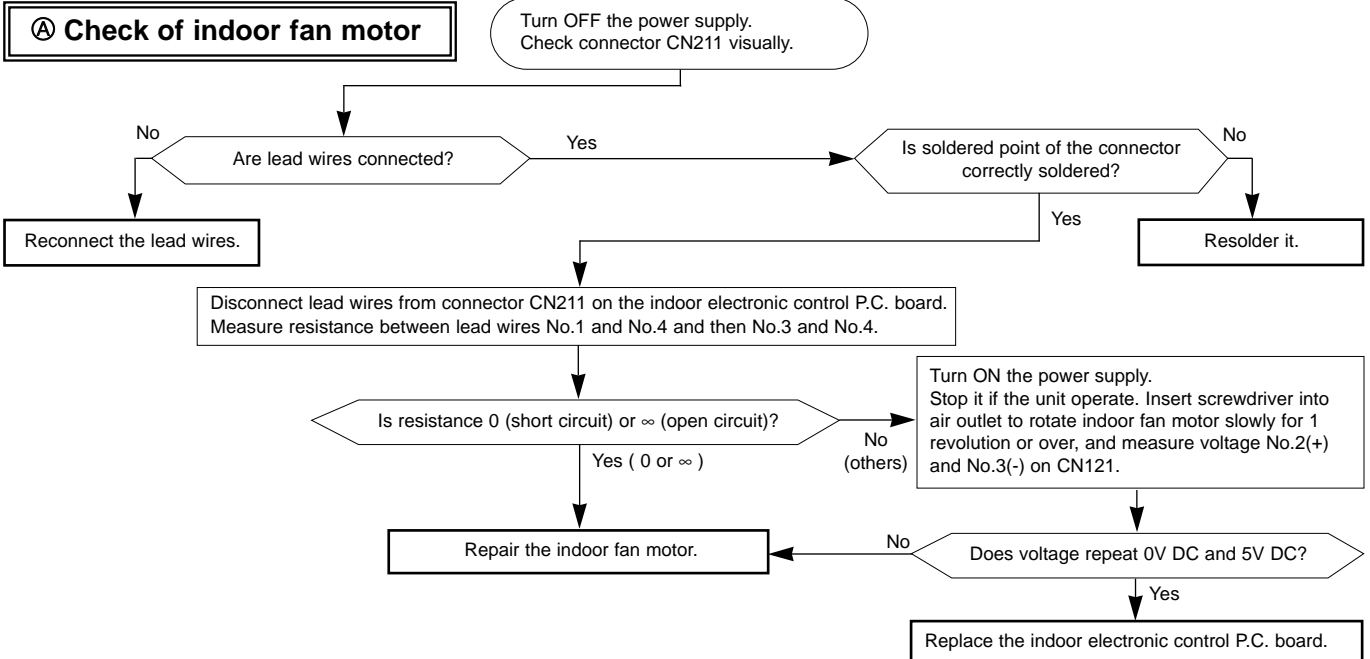
MS-A30ND

Part name	Check method and criterion		Figure						
Room temperature thermistor (RT11)	Measure the resistance with a tester. (Part temperature 10°C ~ 30°C) Refer to 8-6. “Test point diagram and voltage”, “Indoor electronic control P.C. board”, the chart of thermistor.								
Indoor coil thermistor (RT12(main), RT13(sub))									
Indoor fan motor (MF) INNER PROTECTOR 135± 5°C OPEN 86±15°C CLOSE	Motor part	Measure the resistance between the terminals with a tester. (Coil wiring temperature 10°C ~ 30°C)							
		<table><tr><td>Color of lead wire</td><td>Normal</td></tr><tr><td>WHT - BLK</td><td>132 ~ 144 Ω</td></tr><tr><td>BLK - RED</td><td>152 ~ 166 Ω</td></tr></table>		Color of lead wire	Normal	WHT - BLK	132 ~ 144 Ω	BLK - RED	152 ~ 166 Ω
		Color of lead wire		Normal					
	WHT - BLK	132 ~ 144 Ω							
BLK - RED	152 ~ 166 Ω								
Sensor part	Measure the voltage Power ON.								
<table><tr><td>Color of lead wire</td><td>Normal</td></tr><tr><td>BRN - YLW</td><td>4.5 ~ 5.5 V</td></tr><tr><td>YLW - GRY</td><td>(When fan revolved one time) 0V→5V→0V (Approx.)</td></tr></table>	Color of lead wire	Normal	BRN - YLW	4.5 ~ 5.5 V	YLW - GRY	(When fan revolved one time) 0V→5V→0V (Approx.)			
Color of lead wire	Normal								
BRN - YLW	4.5 ~ 5.5 V								
YLW - GRY	(When fan revolved one time) 0V→5V→0V (Approx.)								
Horizontal vane motor(MV1) Vertical vane motor(MV2)	Measure the resistance between the RED terminals and other ones. (Winding temperature 10°C ~ 30°C)								
	<table><tr><td>Normal</td></tr><tr><td>282 ~ 306 Ω</td></tr></table>			Normal	282 ~ 306 Ω				
Normal									
282 ~ 306 Ω									

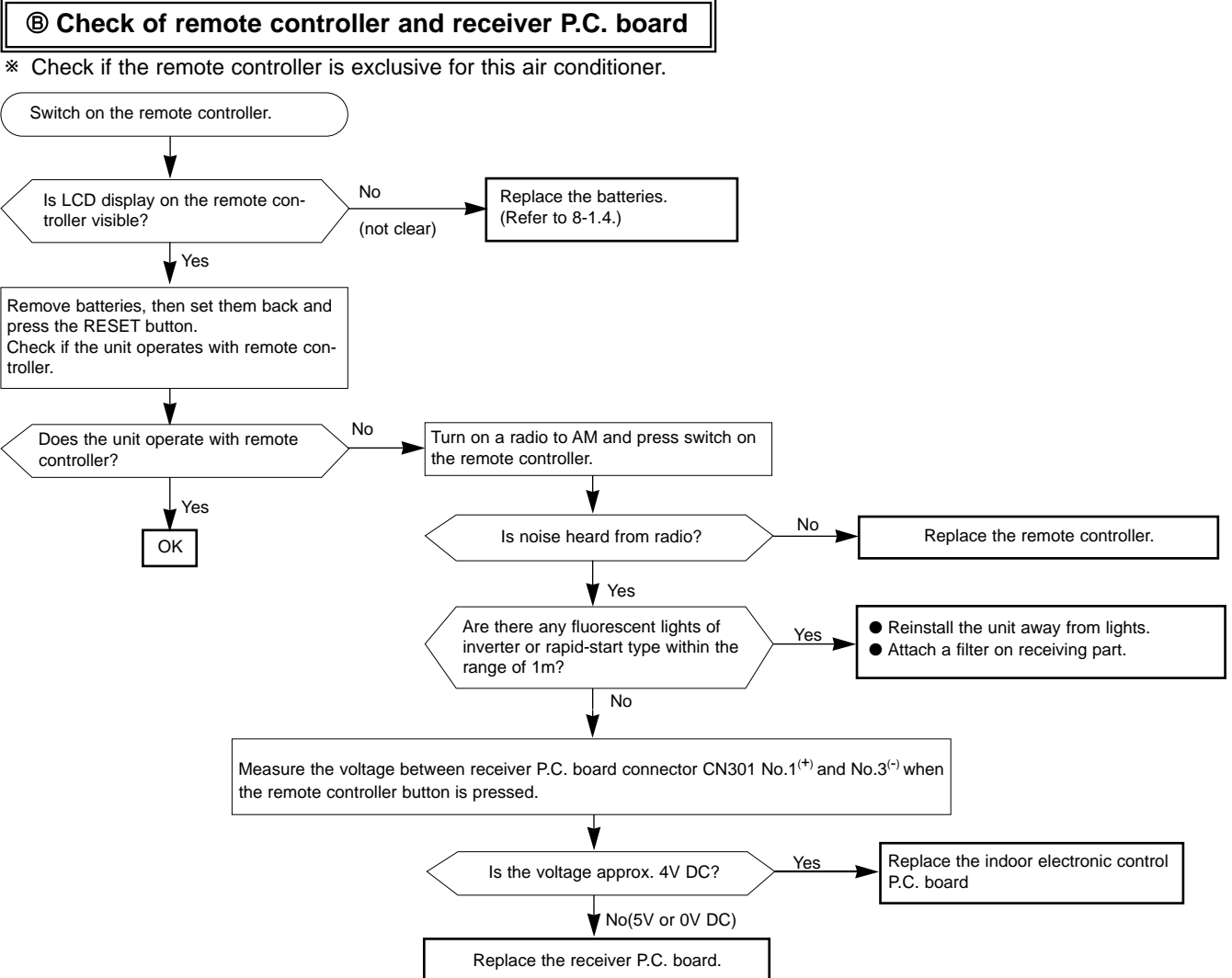
©:INNER PROTECTOR

8-5. Troubleshooting flow

When OPERATION INDICATOR lamp flashes 3-time.
Indoor fan motor doesn't operate.

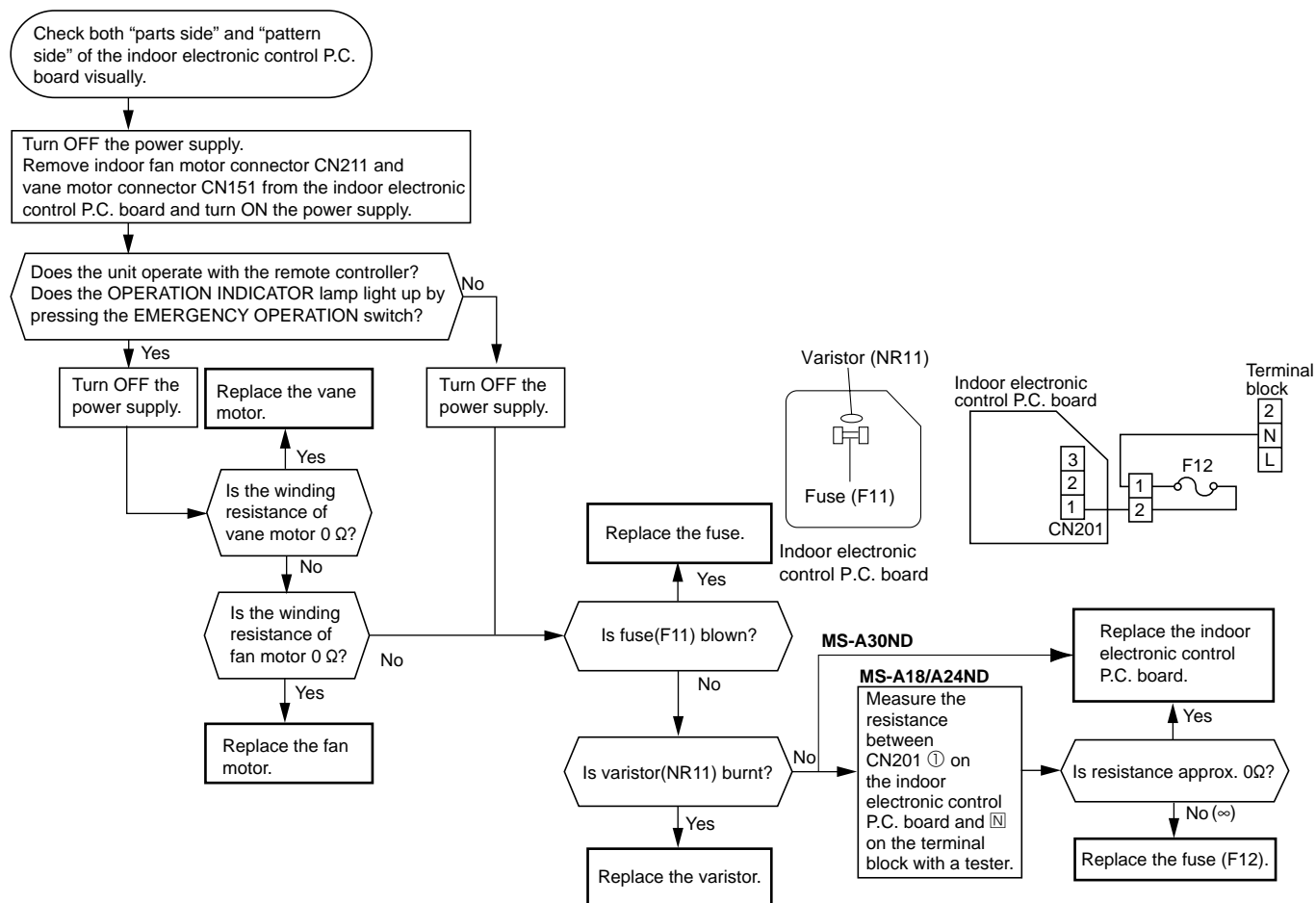


Indoor unit operates by pressing the EMERGENCY OPERATION switch, but doesn't operate with the remote controller.



The unit doesn't operate with the remote controller.
Also, the OPERATION INDICATOR lamp doesn't light up by pressing the EMERGENCY OPERATION switch.

© Check of indoor electronic control P.C. board

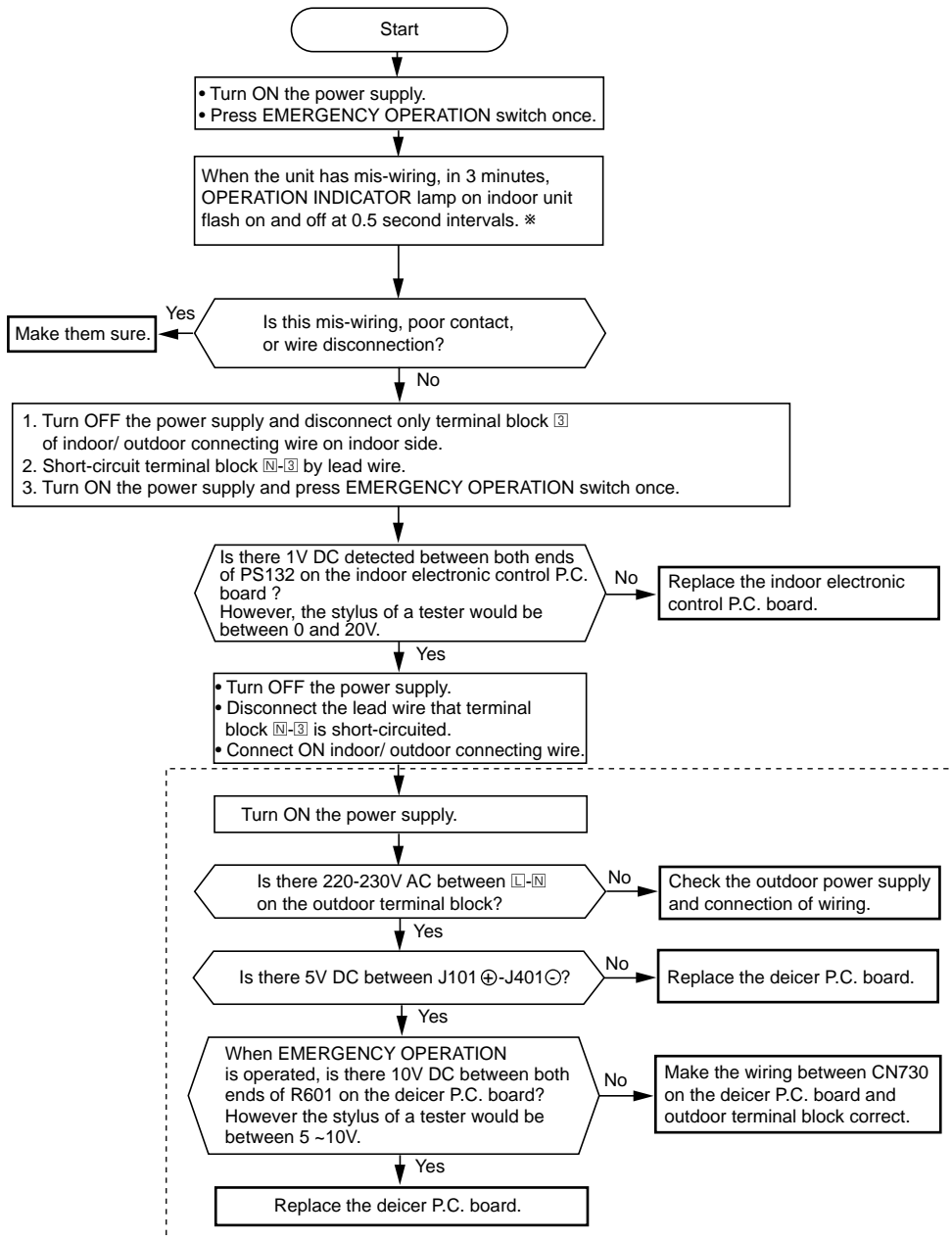


**When OPERATION INDICATOR lamp flashes ON and OFF in every 0.5-second.
Outdoor unit doesn't operate.**

④How to check mis-wiring

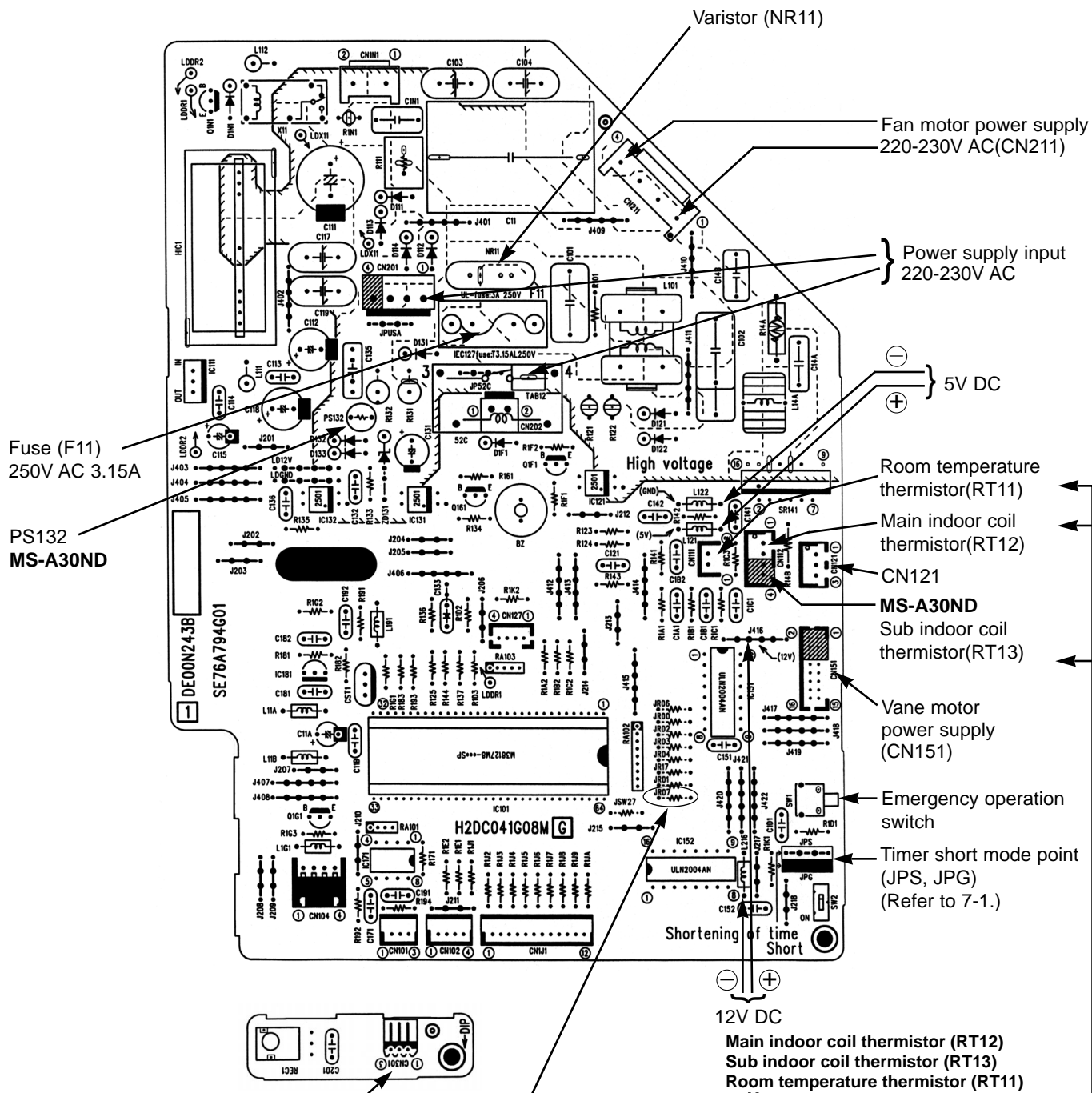
MS-A30ND

* Short circuit of JPG and JPS on the indoor electronic control P.C. board enables self-check to be displayed in 3 seconds.



Refer to outdoor unit service manual.

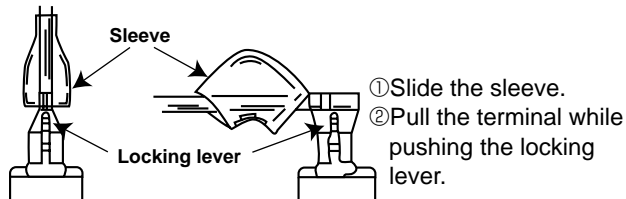
8-6. Test point diagram and voltage
MS-A18ND MS-A24ND MS-A30ND
 Indoor electronic control P.C.board



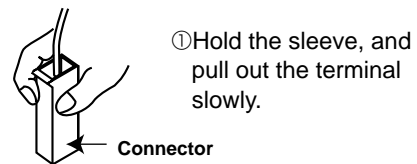
<"Terminal with locking mechanism" Detaching points>

The terminal which has the locking mechanism can be detached as shown below.
There are two types (Refer to (1) and (2)) of the terminal with locking mechanism.
The terminal without locking mechanism can be detached by pulling it out.
Check the shape of the terminal before detaching.

(1) Slide the sleeve and check if there is a locking lever or not.



(2) The terminal with this connector has the locking mechanism.



MS-A18ND MS-A24ND MS-A30ND INDOOR UNIT

OPERATING PROCEDURE	PHOTOS
<p>1. Removing the front panel</p> <ol style="list-style-type: none"> (1) Remove the screws caps of the front panel. Remove the screws. (2) Pull the panel down to your side slightly and unhook the catches at the top. 	<p>Photo 1</p> <p>Front panel</p> <p>Screws</p>
<p>2. Removing the electronic control P.C. board, the receiver P.C. board and the display P.C. board</p> <ol style="list-style-type: none"> (1) Remove the front panel. (Refer to 1.) (2) Remove the screw of the electrical cover. Remove the electrical cover. (3) Remove the screw of the V.A. clamp. Remove the V.A. clamp. (4) Remove the screw of the terminal block. (5) Remove the screw of the ground wire. (6) Disconnect all the connectors and all the lead wires on the electronic control P.C. board. (7) Remove the R.L holder. (8) Remove the electronic control P.C. board. (9) Open the R.L holder, remove the receiver P.C. board and the display P.C. board. 	<p>Photo 2</p> <p>Screws of the ground wire</p> <p>Fan motor connectors</p> <p>Vane motor connector</p> <p>Indoor electronic control P.C.board</p> <p>Screw of the electrical cover</p> <p>Screw of the V.A. clamp</p> <p>Receiver P.C. board</p> <p>R.L holder</p> <p>Screw of the terminal block</p>

OPERATING PROCEDURE

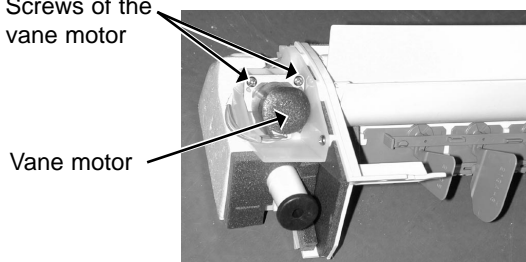
3. Removing the electrical box

- (1) Remove the front panel. (Refer to 1.)
- (2) Remove the electrical cover. (Refer to 2.)
- (3) Disconnect the connector of the indoor coil thermistor.
- (4) Disconnect the motor connector (CN211 and CN121) and the vane motor connector (CN151) on the electronic control P.C. board.
- (5) Remove the screw of ground wire.
- (6) Remove the fan motor lead wire and indoor coil thermistor from the electrical box.
- (7) Remove the lead wire of vane motor from the bottom of electrical box.
- (8) Remove the screw fixing the electrical box, remove the electrical box.

4. Removing the vane motor

- (1) Remove the front panel. (Refer to 1.)
- (2) Remove the electrical cover. (Refer to 2.)
- (3) Remove the lead wire of vane motor. (Refer to 3.)
- (4) Remove the R.L. holder.
- (5) Pull out the drain hose from the nozzle assembly, remove the nozzle assembly.
- (6) Remove the screws of the vane motor, disconnect the connector.
- (7) Remove the vane motor.

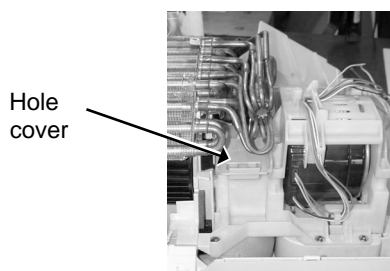
Photo 5 Screws of the vane motor



5. Removing the line flow fan and the indoor fan motor

- (1) Remove the front panel. (Refer to 1.)
- (2) Remove the electrical box. (Refer to 3.)
- (3) Pull out the drain hose from the nozzle assembly, remove the nozzle assembly.
- (4) Remove the water cut.
- (5) Slide the hole cover, remove the hole cover.
- (6) Remove the hexagon socket set screw from the line flow fan.
- (7) Remove the fan motor after removing screws, which fasten the motor, but be careful not to drop it because of its heavy weight.
- (8) Remove the screws fixing the left side of the heat exchanger.
- (9) Lifting the left side of the heat exchanger.
- (10) Remove the line flow fan.

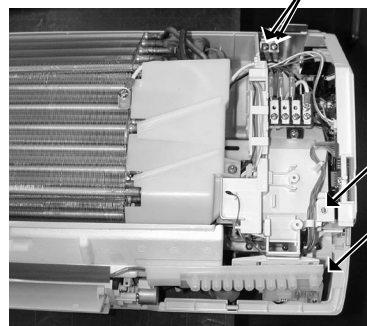
Photo 8



PHOTOS

Photo 3

Screws of the ground wire



Screw of the electrical cover
Screw of the electrical box

Photo 4

Vane motors

Screws of the vane motor

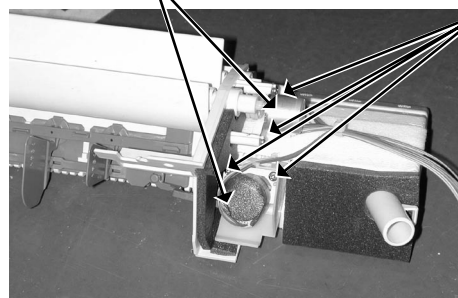


Photo 6

Screws fixing the left side of the heat exchanger

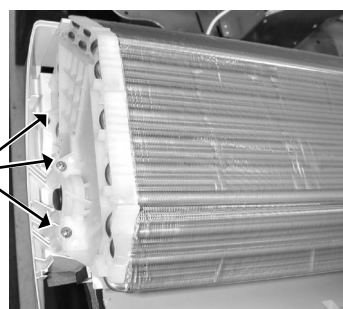
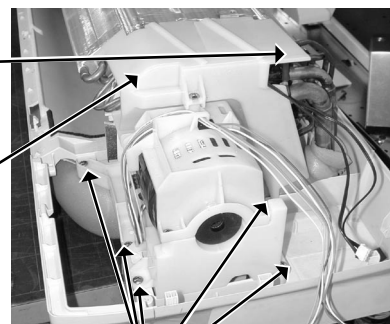


Photo 7

Indoor coil thermistor

Water cut



Screws fixing the fan motor

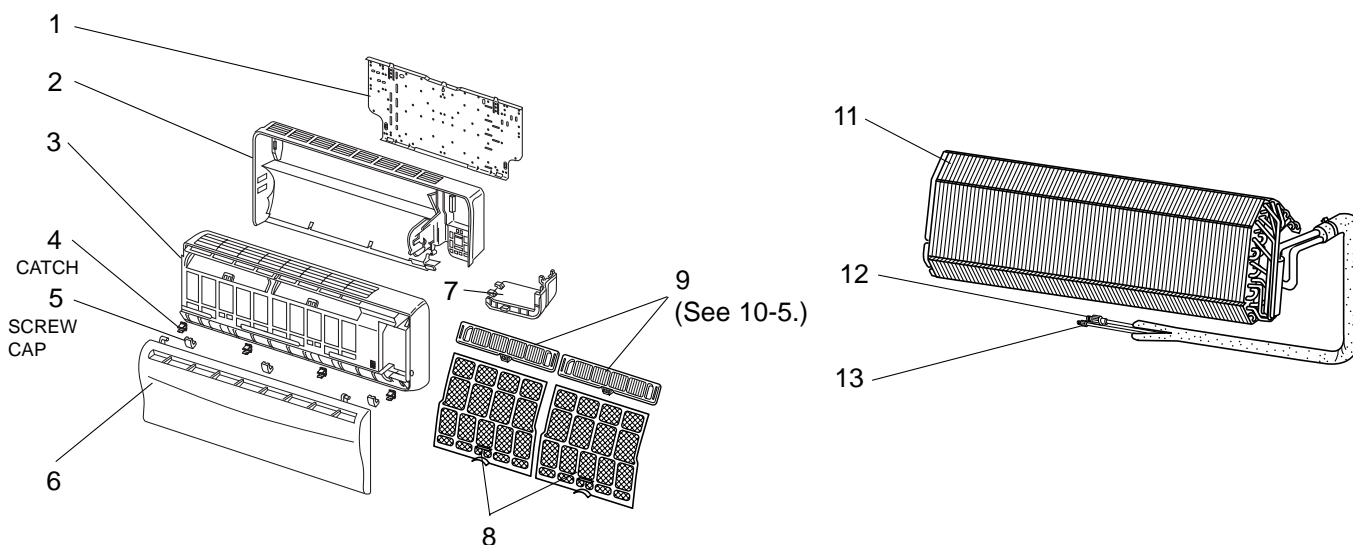
MS-A18ND

MS-A24ND

MS-A30ND

10-1. INDOOR UNIT STRUCTURAL PARTS

10-2. INDOOR UNIT HEAT EXCHANGER



10-1. INDOOR UNIT STRUCTURAL PARTS

Part number that is circled is not shown in the illustration.

No.	Part No.	Part name	Symbol in Wiring Diagram	Q'ty/unit			Remarks	Price
				MS-A18 ND- S1	MS-A24 ND- S1	MS-A30 ND- S1		
1	E02 527 970	INSTALLATION PLATE		1	1	1		
2	E02 685 234	BOX		1	1	1		
3	E02 888 000	FRONT PANEL ASSEMBLY		1	1	1	Including No.4,5,6	
4	E02 408 142	CATCH		4	4	4	4PCS/SET	
5	E02 685 067	SCREW CAP		3	3	3	3PCS/SET	
6	E02 888 010	GRILLE		1	1	1		
7	E02 685 975	CORNER BOX RIGHT		1	1	1		
8	E02 534 100	CATECHIN AIR FILTER		2	2	2	1PCE/SET	
9		AIR CLEANING FILTER		2	2	2	MAC-1700FT	
⑩	E02 888 007	LAMP PANEL		1	1	1		

10-2. INDOOR UNIT HEAT EXCHANGER

11	E02 817 620	INDOOR HEAT EXCHANGER		1				
	E02 947 620	INDOOR HEAT EXCHANGER			1			
	E02 890 620	INDOOR HEAT EXCHANGER				1		
12	E02 179 667	UNION(GAS)		1			φ12.7	
	E02 138 666	UNION(GAS)			1		φ15.88	
	E02 A16 666	UNION(GAS)				1	φ15.88	
13	E02 151 667	UNION(LIQUID)		1	1		φ6.35	
	E02 527 667	UNION(LIQUID)				1	φ9.52	

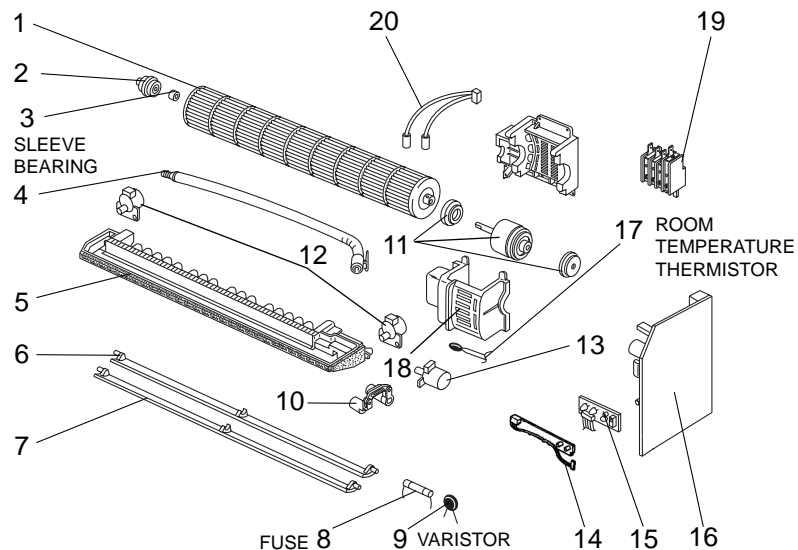
PARTS LIST (non-RoHS compliant)

MS-A18ND

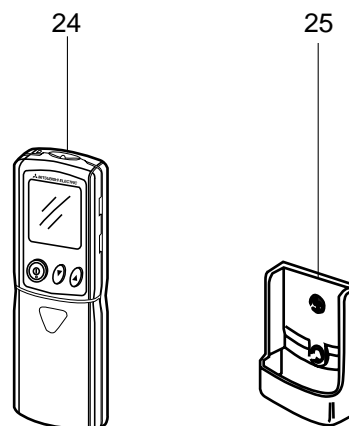
MS-A24ND

MS-A30ND

10-3. INDOOR UNIT FUNCTIONAL PARTS AND ELECTRICAL PARTS



10-4. ACCESSORY AND REMOTE CONTROLLER



10-3. INDOOR UNIT FUNCTIONAL PARTS AND ELECTRICAL PARTS

Part numbers that are circled are not shown in the illustration.

No.	Part No.	Part name	Symbol in Wiring Diagram	Q'ty/unit			Remarks	Price
				MS-A18 ND- S1	MS-A24 ND- S1	MS-A30 ND- S1		
1	E02 527 302	LINE FLOW FAN		1	1	1		
2	E02 408 509	BEARING MOUNT		1	1	1		
3	E02 001 504	SLEEVE BEARING		1	1	1		
4	E02 408 702	DRAIN HOSE		1	1	1		
5	E02 996 235	NOZZLE		1	1	1		
6	E02 685 040	VANE UPPER		1	1	1		
7	E02 685 041	VANE LOWER		1	1	1		
8	E02 A49 382	FUSE	F11	1	1	1	3.15A	
9	E02 817 385	VARISTOR	NR11	1	1	1		
10	E02 527 034	VANE CRANK SET		1	1	1		
11	E02 527 300	INDOOR FAN MOTOR ASSEMBLY	MF	1	1	1	RC4V40- □□ Including RUBBER MOUNT	
12	E02 448 303	VERTICAL VANE MOTOR	MV2	2	2	2	RIGHT&LEFT	
13	E02 408 303	HORIZONTAL VANE MOTOR	MV1	1	1	1	UP&DOWN	
14	E02 528 329	DISPLAY P.C. BOARD		1	1	1		
15	E02 527 468	RECEIVER P.C. BOARD		1	1	1		
16	E02 949 452	ELECTRONIC CONTROL P.C. BOARD		1			AUTO RESTART Including No.15	
	E02 950 452	ELECTRONIC CONTROL P.C. BOARD			1		AUTO RESTART Including No.15	
	E02 951 452	ELECTRONIC CONTROL P.C. BOARD				1	AUTO RESTART Including No.15	
17	E02 527 308	ROOM TEMPERATURE THERMISTOR	RT11	1	1	1		
18	E02 527 333	MOTOR BAND		1	1	1		
19	E02 888 375	TERMINAL BLOCK	TB	1	1			
	E02 814 375	TERMINAL BLOCK	TB			1		
20	E02 408 311	INDOOR COIL THERMISTOR	RT12	1				
	E02 947 311	INDOOR COIL THERMISTOR	RT12		1			
	E02 527 311	INDOOR COIL THERMISTOR	RT12, RT13			1		
21	E02 528 034	VANE MOTOR SUPPORT SET (RIGHT)		1	1	1		
22	E02 529 034	VANE MOTOR SUPPORT SET (LEFT)		1	1	1		
23	E02 408 381	THERMAL FUSE	F12	1	1			

10-4. ACCESSORY AND REMOTE CONTROLLER

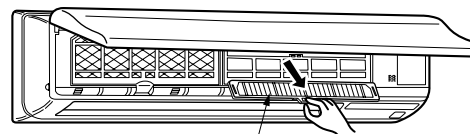
24	E02 527 426	REMOTE CONTROLLER		1	1	1	KM04B	
25	E02 527 083	REMOTE CONTROLLER HOLDER		1	1	1		

PARTS LIST (non-RoHS compliant)

10-5. AIR CLEANING FILTER

- AIR CLEANING FILTER removes fine dust of 0.01 micron from air by means of static electricity.
- Normal life of AIR CLEANING FILTER is 4 months. However, when it becomes dirty, replace it as soon as possible.
- Clogged AIR CLEANING FILTER may reduce the air conditioner capacity or cause frost on the air outlet.
- DO NOT reuse AIR CLEANING FILTER even if it is washed.
- DO NOT remove or attach AIR CLEANING FILTER during unit operation.

Model	Part No.
MS-A18ND - S1	MAC-1700FT
MS-A24ND - S1	
MS-A30ND - S1	



Air cleaning filter (White bellows type)

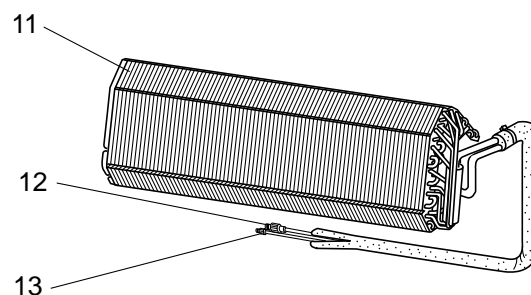
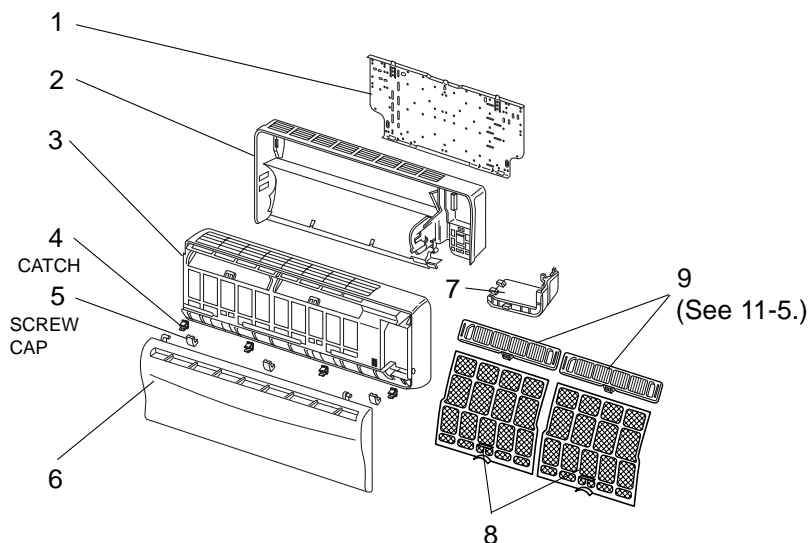
MS-A18ND

MS-A24ND

MS-A30ND

11-1. INDOOR UNIT STRUCTURAL PARTS

11-2. INDOOR UNIT HEAT EXCHANGER



11-1. INDOOR UNIT STRUCTURAL PARTS

Part number that is circled is not shown in the illustration.

No.	RoHS	Part No.	Part name	Symbol in Wiring Diagram	Q'ty/unit			Remarks	Price
					MS-A18 ND- [S1]	MS-A24 ND- [S1]	MS-A30 ND- [S1]		
1	G	E12 527 970	INSTALLATION PLATE		1	1	1		
2	G	E12 685 234	BOX		1	1	1		
3	G	E12 888 000	FRONT PANEL ASSEMBLY		1	1	1	Including No.4,5,6	
4	G	E12 408 142	CATCH		4	4	4	4PCS/SET	
5	G	E12 685 067	SCREW CAP		3	3	3	3PCS/SET	
6	G	E12 888 010	GRILLE		1	1	1		
7	G	E12 685 975	CORNER BOX RIGHT		1	1	1		
8	G	E12 534 100	CATECHIN AIR FILTER		2	2	2	1PCE/SET	
9	G		AIR CLEANING FILTER		2	2	2	MAC-1700FT	
⑩	G	E12 888 007	LAMP PANEL		1	1	1		

11-2. INDOOR UNIT HEAT EXCHANGER

11	G	E12 817 620	INDOOR HEAT EXCHANGER		1				
	G	E12 947 620	INDOOR HEAT EXCHANGER			1			
	G	E12 890 620	INDOOR HEAT EXCHANGER				1		
12	G	E12 179 667	UNION(GAS)		1			φ12.7	
	G	E12 138 666	UNION(GAS)			1		φ15.88	
	G	E12 A16 666	UNION(GAS)				1	φ15.88	
13	G	E12 151 667	UNION(LIQUID)		1	1		φ6.35	
	G	E12 527 667	UNION(LIQUID)				1	φ9.52	

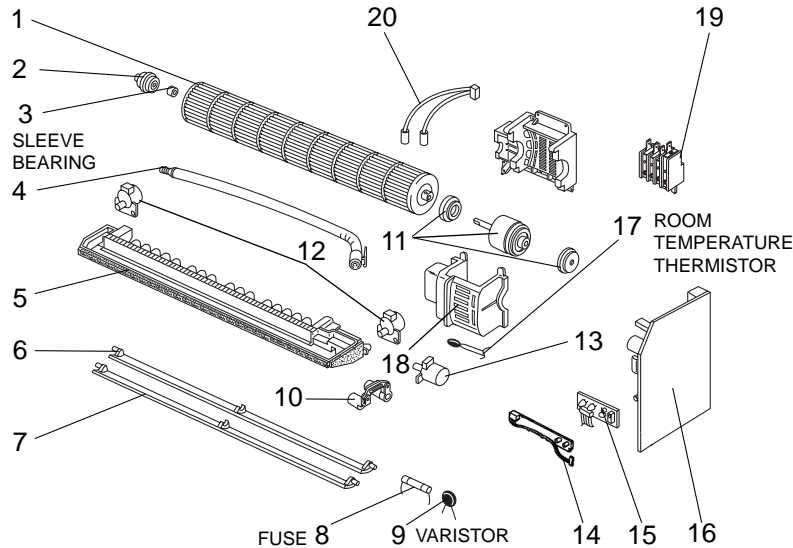
RoHS PARTS LIST (RoHS compliant)

MS-A18ND

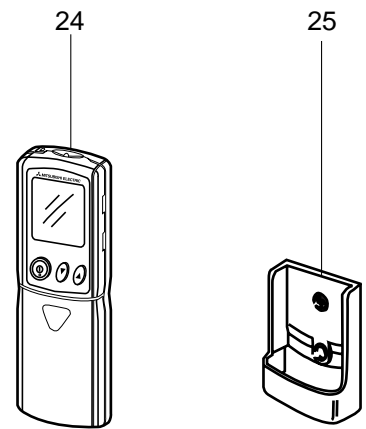
MS-A24ND

MS-A30ND

11-3. INDOOR UNIT FUNCTIONAL PARTS AND ELECTRICAL PARTS



11-4. ACCESSORY AND REMOTE CONTROLLER



11-3. INDOOR UNIT FUNCTIONAL PARTS AND ELECTRICAL PARTS

Part numbers that are circled are not shown in the illustration.

No.	RoHS	Part No.	Part name	Symbol in Wiring Diagram	Q'ty/unit			Remarks	Price
					MS-A18 ND- S1	MS-A24 ND- S1	MS-A30 ND- S1		
1	G	E12 527 302	LINE FLOW FAN		1	1	1		
2	G	E12 408 509	BEARING MOUNT		1	1	1		
3	G	E12 001 504	SLEEVE BEARING		1	1	1		
4	G	E12 408 702	DRAIN HOSE		1	1	1		
5	G	E12 996 235	NOZZLE		1	1	1		
6	G	E12 685 040	VANE UPPER		1	1	1		
7	G	E12 685 041	VANE LOWER		1	1	1		
8	G	E12 A49 382	FUSE	F11	1	1	1	3.15A	
9	G	E12 817 385	VARISTOR	NR11	1	1	1		
10	G	E12 527 034	VANE CRANK SET		1	1	1		
11	G	E12 527 300	INDOOR FAN MOTOR ASSEMBLY	MF	1	1	1	RC4V40-□□ Including RUBBER MOUNT	
12	G	E12 448 303	VERTICAL VANE MOTOR	MV2	2	2	2	RIGHT&LEFT	
13	G	E12 408 303	HORIZONTAL VANE MOTOR	MV1	1	1	1	UP&DOWN	
14	G	E12 528 329	DISPLAY P.C. BOARD		1	1	1		
15	G	E12 527 468	RECEIVER P.C. BOARD		1	1	1		
16	G	E12 949 452	ELECTRONIC CONTROL P.C. BOARD		1			AUTO RESTART Including No.15	
	G	E12 950 452	ELECTRONIC CONTROL P.C. BOARD			1		AUTO RESTART Including No.15	
	G	E12 951 452	ELECTRONIC CONTROL P.C. BOARD				1	AUTO RESTART Including No.15	
17	G	E12 527 308	ROOM TEMPERATURE THERMISTOR	RT11	1	1	1		
18	G	E12 527 333	MOTOR BAND		1	1	1		
19	G	E12 888 375	TERMINAL BLOCK	TB	1	1			
	G	E12 814 375	TERMINAL BLOCK	TB			1		
20	G	E12 408 311	INDOOR COIL THERMISTOR	RT12	1				
	G	E12 947 311	INDOOR COIL THERMISTOR	RT12		1			
	G	E12 527 311	INDOOR COIL THERMISTOR	RT12, RT13			1		
21	G	E12 528 034	VANE MOTOR SUPPORT SET (RIGHT)		1	1	1		
22	G	E12 529 034	VANE MOTOR SUPPORT SET (LEFT)		1	1	1		
23	G	E12 408 381	THERMAL FUSE	F12	1	1			

11-4. ACCESSORY AND REMOTE CONTROLLER

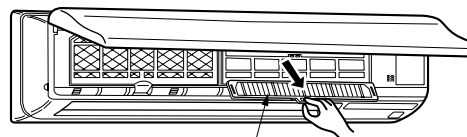
24	G	E12 527 426	REMOTE CONTROLLER		1	1	1	KM04B	
25	G	E12 527 083	REMOTE CONTROLLER HOLDER		1	1	1		

RoHS PARTS LIST (RoHS compliant)

11-5. AIR CLEANING FILTER

- AIR CLEANING FILTER removes fine dust of 0.01 micron from air by means of static electricity.
- Normal life of AIR CLEANING FILTER is 4 months. However, when it becomes dirty, replace it as soon as possible.
- Clogged AIR CLEANING FILTER may reduce the air conditioner capacity or cause frost on the air outlet.
- DO NOT reuse AIR CLEANING FILTER even if it is washed.
- DO NOT remove or attach AIR CLEANING FILTER during unit operation.

Model	Part No.
MS-A18ND - S1	MAC-1700FT
MS-A24ND - S1	
MS-A30ND - S1	



Air cleaning filter (White bellows type)

Mr. SLIM™



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Distributed in May 2006. No.OB404 REVISED EDITION-A 106
Reprinted in Apr. 2005. No.OB404 100
Distributed in Mar. 2005. No.OB404 6
Made in Japan

New publication, effective May 2006
Specifications subject to change without notice.